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DIAMOND 2D SCAN FOR ALIGNING AN OPTICAL FIBER TO AN OPTICAL OUTPUT PORT

ABSTRACT

A method of aligning an optical fiber to a laser diode obtains first light from the laser at a point designated as the center of a planar geometric shape. Data points are
5 taken at the vertices of the shape, whereby a scan measures alignment quality at each of the vertices and the center. The scan begins by obtaining data at the center and moves to a vertex and the remaining vertices in either a clockwise or counterclockwise fashion. Alignment qualities are compared and the location of highest alignment quality is designated as a new center. The scan repeats until the location of the new center remains
10 unchanged, whereby the new center becomes the point of alignment. Alternately, the scan iteration may repeat with increased resolution by reducing the size of the geometric shape and/or increasing the power from the laser until a point of alignment is found at highest resolution.